AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

" *O fortunatos nimium sua si bona norint*
" *Agricolas.*" . . . VIRG.

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AGRICULTURE.

FROM THE PHILADELPHIA RURAL MAGAZINE.

Officers of the Philadelphia Society for Promoting Agriculture, elected January 18, 1820.

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At the annual meeting of the Philadelphia Society for promoting Agriculture, held first month 18th, 1820, it was

Resolved unanimously, That the thanks of the Society be presented, and they are hereby presented to WILLIAM TILGHMAN, for his able and very valuable Address delivered this day by the appointment of the Society; and that he be requested to furnish a copy for publication.

By order,
ROBERTS VAUX, Secretary.

An Address delivered before the Philadelphia Society for Promoting Agriculture, at its Anniversary Meeting, January 18th, 1820, by WILLIAM TILGHMAN, L. L. D., chief justice of the State of Pennsylvania, and one of the Vice-Presidents of the Society.

ADDRESS.

Gentlemen of the Agricultural Society.

When you did me the honour of requesting me to deliver this Address, you did not expect that I should enter into minute details of the process of Agriculture. Such an attempt might expose my own ignorance, but could not add to your information.—The object of our Society is, *the Promotion of Agriculture.* Whatever conduces to this end, either immediately or even remotely, is worthy of our attention, and within the scope of our Association. In this view of the subject, I perceive so wide a range, that there is less difficulty in finding objects, than in making a proper selection. To call forth the exertions of the Society its zeal must be excited. But zeal is not to be excited, without a conviction of the importance of the cause in which we are engaged. May I be permitted then, to declare my conviction, that amidst the profusion of societies with which the present age abounds, there is none more useful, or more dignified, than that for the *promotion of Agriculture.* Indeed, in point of *utility*, I might justly say that it *precedes* all others. Because, even if mankind could exist without Agriculture, yet they could exist only in a savage state, and in small numbers. The great command "*increase and multiply.*" could not be obeyed. There could be nothing worthy the name of art, or science, or literature. When I cast my eye on the map of Pennsylvania, and view the vast quantity of excellent land, in the rude state in which nature formed it, I am struck with astonishment at the multitudes which throng our cities, struggling with hunger, cold and disease. Nor is my wonder confined to the lower orders of society. For I see many of liberal education, and with the means of acquiring a competency in the country, wasting their lives in disgraceful idleness, or fruitless efforts to force their way through the crowds which block up every avenue to profit or preferment. The flood of commerce which set upon our shores during five and twenty years of war and disorder in Europe, has given to our cities a premature growth. In every branch of trade and commerce there are too many competitors. Labourers are too numerous. Every mechanic art, every liberal profession is overdone. Happy would it be for the city, and happy for the country, if any efforts of this society could inspire a respect, and a taste for an *art* in which no man need be ashamed to employ his faculties; for a *condition*, which, after all, seems most congenial to the nature of man. It is a life, to which, at one time or other, we all aspire. For who is there, that amidst the eager pursuit of wealth or ambition, does not sometimes pause, and console himself with the fond, though often fallacious hope, of passing his latter days in the independence, the ease, the plenty, the safety and the innocence of the country? In Pennsylvania, young men of education would have peculiar advantages in spreading themselves through the country, for it is a fact (and we are every day feeling the effects of it,) that in no state in the union, is education so much confined to towns. There are many inhabitants of this city, who hold extensive tracts of land, which neither they nor their children have ever seen. This is a bad state of things. For, through ignorance of the quality, the situation and value of their lands, these persons are sometimes a prey to speculators; and sometimes, erring on the contrary extreme, they conceive extravagant notions, and refuse to sell at a fair price. Hence Agriculture suffers—either the land remains a desert, or they are occupied by poor intruders, who knowing the instability of their title, are afraid to attempt any valuable improvement. These people, with few exceptions, lead a wretched life, and are apt to imbibe sentiments hostile to the proprietors of the soil, whom they consider as natural enemies. Could the parties but see each other, very different feelings might prevail. A little kindness and condescension on the part of the proprietor, might convert a discontented trespasser, into a useful tenant or purchaser. That this has happened, in many instances, I know; which induces me to think, that were the trial made, it would happen in many more. Where large property of this kind, is in the hands of heads of families with several children, one or two of the sons might manage the estate to great advantage, by living on the spot. Agents are expensive, and often unfaithful. But one may confide in his own blood. Besides the very circumstance of a well educated young man residing in any place, will naturally attract others of similar qualification, to the same spot; and thus an agreeable society might be formed, and great encouragement afforded to the labouring poor of the neighbourhood. In this kind of policy, the state of New York has set us a good example. And the consequences of her conduct are obvious; a greater proportion of her lands is settled, and her unsettled lands, of equal quality, sell for a higher price than ours. Although the views of our society are not confined to the limits of the state, and our earnest wishes are for the prosperity of the whole, and every part of the union, yet it may be considered as our duty to direct our attention more particularly to Pennsylvania. We cannot be accused then of acting with ungenerous policy, if we endeavour to promote the settlement of our own lands in preference to those of our neighbours. We may, without impropriety, suggest all fair and honourable arguments, to convince the emigrants from the eastern states, and from Europe, that it is their interest to establish themselves here, rather than seek a residence in a distant country, to the west or the south. It is not my intention to enter deeply into this subject. It might be enough, to suggest to the Society, the utility of circulating good pamphlets, which have already been written, or may be written hereafter. But, one or two leading facts it may not be amiss to mention. The rich productions of the south, are not to be attained but by men of considerable capital. The object is tempting, but when offered to the consideration of emigrants from Europe, or our sister states to the eastward, they will remember that the climate where rice, cotton, tobacco, indigo and sugar flourish, is generally unfavourable to health; and that these articles are not to be cultivated to advantage, without slaves. They have therefore to engage in a new kind of life, opposed to the habits and principles in which they have been educated, and which, however flattering the outset, will probably terminate in an enfeebled body and discontented mind.

But the great class of emigrants, is that of people who have small capitals, and must seek their bread, by the labour of their own hands. To such persons, health is every thing. The languid eye of sickness dwells without pleasure, on the fairest prospects of nature. In vain is the fertile bottom, or the rich prairie, offered to the arm unnerved by disease. It is a notorious fact, that rich, low, level countries, are subject to fevers. They should therefore be shunned by those who are to live by their own labour. Another great inconvenience in those countries is, that they are badly supplied with water, either for drinking or machinery. If, indeed, the lands in the western region were extremely cheap, and those in Pennsylvania at a price beyond the reach of a poor man, he must go to the west from necessity. But that is not the case,—our lands are believed to be as low priced, as those beyond the Ohio; and much more so, when there is taken into the calculation (as there ought to be) the expense of the journey. Another important circumstance in our favour, is a much better market for the sale of our productions, and the purchase of necessary articles. This is important at all times, but peculiarly in war, when the Mississippi, the only inlet or outlet of the whole western country, may be blockaded by a hostile fleet.

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Let it not be supposed, that the interests of Agriculture and of Commerce are at variance. On the contrary, they are inseparable. Of this, the agriculturists of the United States have had good proof. No persons on earth have profited more by commerce.—During the long wars of Europe, the staple productions of the middle states sold at double price, and those of the southern states were very high, both during the war and after. Those prices were produced, in part, by the influx of wealth, which occasioned an increased consumption at home, and in part, by exportation to foreign countries, but principally by the latter. Both causes, however, sprang from commerce; and both, as long as commerce exists, will continue to operate in a greater or less degree. Indeed, if we could suppose a nation cut off from all intercourse with other nations, (that is, from all foreign commerce) that nation, though abounding in all the necessaries of life, would be barbarous, selfish, illiterate and ignorant. Neither let us give way to the idea, that either agriculture or commerce, are incompatible with domestic manufactures. Unwise laws, may injure either one or the other, by unjust

Preferences; but under proper regulations, they will aid, and invigorate each other. This is not the place for entering into a disquisition of the degree of encouragement which should be afforded by *law* to manufactures. That important subject is before the national legislature, where it will no doubt, receive an impartial and mature consideration. But thus much may be said, with certainty, that it is the *duty*, as well as the *interest*, of all of us, to use *our own*, in preference to *foreign* manufactures, where they can be furnished on reasonable terms. It cannot be denied, that manufactures afford a sure market, for the productions of the neighbouring country; and as they are multiplied, in the same ratio, are the markets increased. And there is a peculiar advantage in markets of this kind, at a distance from navigable waters; that, the consumption being at home, the expense of carriage is saved. But, there is a kind of manufacture, *domestic in the strictest sense*, the benefit of which is inestimable, because while it adds to the *stock* of the family, it protects ther *morals*. I allude to spinning, weaving, and such things as are done by the hands of the husband, the wife, or the children, without leaving their home. It guards them against *idleness*, that child of folly, and parent of vice, and is often clear gain, as it occupies those hours which would have been passed in inaction. I am afraid, that in this kind of industry, we have rather degenerated. A very respectable gentleman, a member of the Society of Friends, informed me, that about the year 1764, he attended a meeting in Chester county, near the borders of Maryland, and that most of his society in that neighbourhood, were clothed *completely* and *handsomely* in dresses of their own manufacture. Were he to visit that meeting now, I doubt whether he would see his friends in the same kind of apparel. Yet meritorious examples are not wanting, even now, and I hope I shall be excused for mentioning one lately communicated to me. In the western part of Pennsylvania, on the side of the Alleghany river, lives a man, who, ten or twelve years ago, seated himself on a tract of land, to which he had no title, in the humble character of a *squatter*.* This man has converted a wilderness into a fine farm; and, with the assistance of an industrious wife, brought up a large family of children. He raises on his farm all the materials for clothing the family; and whatever they wear, of linen or woollen texture, excellent in their kinds, is spun, woven, and manufactured in the house. They also make their own sugar, from the maple; and their own leather; and *purchase* (or rather *barter* for) nothing but iron, and salt.—Their farming utensils are chiefly homemade. But what is more commendable than all (and perhaps the cause of all) *very little whiskey or ardent spirits is drunk* by any of them. To finish the picture, I have to add, that the proprietor of the land, with views no less *politic* than *liberal*, has confirmed these good people in their title, on moderate terms—so that this little story contains a moral, from which, both *settlers* and *proprietors*, may profit.

It has been apprehended by some, that the late fall in the price of land, and its productions, would damp the ardour of cultivators, and deter men of capital from employing their funds in the purchase of real property. This apprehension appears to be ill founded. If the profits of farming have been diminished, so likewise have the profits of all other business; so that there is no particular reason for withholding funds from an investment in land. We are in a state of distress, which I trust will be but temporary; for the country has great resources, and sufficient knowledge to bring them into action. A stagnation of commerce was to be expected, on the cessation of the wars in Europe.† But this stagnation is not peculiar to America—she shares it in common with all the world—we have indeed, particular distress, arising from our own errors, on the subject of banks. An immoderate issue of bank paper afforded an unhappy facility of borrowing. The money when borrowed, must be made use of in some way—many of the borrowers having no good use for it, either trifled it away, in unnecessary expenses, or in the purchase of land, which soon rose, nominally, to twice its value. Such a state of things could not last long—the delusion is past. It is to be lamented, that many good people have been the victims of this infatuation; but we must comfort ourselves with the hope, that some good will result from it, if a cure is not attempted by rash and violent means, as a people, we had become too extravagant and too luxurious. The slow but sure progress of industry was despised. Every man was in haste to be rich, by some visionary project, dignified with the name of *speculation*. But we are now suffering for these follies, and by suffering, we shall be purified, and brought back to better habits. This will be a lasting good. Instead of desponding then, let us prosecute our business with increased vigour and economy, and we shall soon find, that although we have fewer paper dollars, we have more real wealth, and what is of much greater importance, better morals, and of course more happiness. A large capital is at present locked up, because the owners are in doubt how to employ it. When business shall flow in decided channels, this capital will be brought into activity. It is almost certain, that neither commerce, nor bank stock will be as profitable as they have been; so that there is a strong probability of an investment of a large capital in real estate, which, after all, possesses a stability unknown to any other kind of property.

(*To be continued.*)

* A term in use, in New York and Pennsylvania, to denote a man who seats himself on land to which he has no title.

† In a letter of the late President Adams, published since the delivery of this Address, he says he remembers that the like depression of commerce, manufactures, and real estate, took place after the wars which ended in 1748, 1763, and 1783.

Internal Improvements.

FOR THE AMERICAN FARMER.

The following little essay was hastily written in the beginning of the year 1818, during the session of Congress, at the opening of which the President of the United States declared his opinion, "that Congress has not the power to make roads and canals."—Its object was to stimulate attention to a subject deemed by the writer very important to our country, as a powerful auxiliary to its wealth and prosperity, and a cement of its union—to excite inquiry and examination, by the proper authorities, at what places and at what expense, communications for the purposes of commercial intercourse are practicable and expedient—and to form a school for the exercise of *our own young men* in the practice of civil Engineering. As the writer anticipated, the demand for civil Engineers, properly qualified, is already great, and is increasing; and surely it is time for us to aim at *independence* in *this* as well as in other respects. This little essay, with all its imperfections on its head, is freely offered by the author, to the Editor of the "American Farmer," and it is referred to him to judge whether its publication, *now*, can be useful.

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To HENRY ST. G. TUCKER, *chairman of the committee of the House of Representatives of the United States, on Roads and Canals.*

MY ESTEEMED FRIEND.—I am honoured by thy note, dated "January 19, 1818," saying that "information from me in relation to water communications would be very acceptable to thee individually, although, in the present state of things, the committee cannot proceed to act upon it."

In venturing to offer information to those whose knowledge may be far superior to my own, I may give proofs of zeal, but perhaps not of wisdom. Be that as it may, in addressing my sentiments to thee, and, through thee, to the committee on Roads and Canals, and to all other citizens whom the momentous subject may concern, I cast myself on your candour and liberality. The statement and remarks I shall make are entirely and freely at your disposal.

When with a map of the United States and their territories before us, we contemplate the possible connexions between the numerous rivers traversing and intersecting our country in all directions, which may afford an easy, cheap, and safe water-communication between the most distant parts, the intelligent mind must be animated and enlarged by the expanding anticipation. The probable consequences of such facility of communication are calculated to present such a splendid view of future greatness, prosperity, union, and happiness in a community of strength, reason, and love, that it is difficult for the mind to be sober in the contemplation. Industry will be promoted, because man may enjoy freely the fruits of his labour—idleness will be left without excuse—poverty and crime will diminish—and the sphere of sound and practical morality will be enlarged. Internal commerce will be facilitated—sections of country, so distant that the inhabitants are now strangers to each other, will constitute, as it were, one neighbourhood. The wants of one part will be supplied by the industry of another, in a reciprocity of interest. In such an intercourse, bigotry, superstition, prejudice, and local jealousy will be dissipated—liberality towards one another will grow up in their stead, and a harmonious standard of public opinion may be expected.

The states of New York and Virginia have actually commenced the noble work—Pennsylvania, North Carolina and Georgia are making preparations—Ohio, Kentucky, Indiana, Illinois, and Michigan are looking on, with a deep interest—and the other states may be expected to follow the laudable example. Can it be supposed the United States will, with a cold indifference, stand aloof from the interesting object?

I wish not to touch the constitutional question of the powers of the general government. That question is in very able hands. I shall confine myself to the expediency of making an object of such vital interest a *national* one, so far at least as yielding to it *the overflowings* of the treasury. To set apart and pledge a particular specified branch of the revenue, might sometimes, in case of deficit, be inconvenient to the fiscal operations of the government; and I think it very probable that, in general, it would be an aid far less efficient than would be a dividend among the states of such surplus as may remain in the treasury, after the civil list, the sinking fund, and every tangible object of expenditure are fully satisfied. Should a general system of interior communication by canals be organized, and a commencement made on a judicious selection of parts, some of them might, in a few years, come into operation, and, by a very small toll, yield abundant revenue, beyond what would be necessary for their own maintenance and repairs, still leaving conveyance vastly cheaper than it now is, or can be by land-carriage. The avails of labour would be much increased by the cheapness and facility of conveyance to market; of course, activity and expansion would be given to enterprise—national wealth would be greatly augmented—and the sources of revenue would be multiplied, enlarged, and increasingly productive.

Taking it for granted that those whom I now address, are not only acquainted, but familiar, with the considerations I have presented, I have endeavoured to be concise. I proceed to state;

1st. Such water-communications as have been examined, and actually commenced.

2nd. Such water-communications as appear to be collateral to a primary canal, and naturally connected with the project. And

3rd. Such primary canals as from the proximity of bays and rivers appear practicable, and, if practicable, of such importance as to invite examination.

I. Such water-communications as have been examined and actually commenced.

Two canals have been projected in the state of New-York: one from Lake Erie to Hudson river at Albany, 353 miles in length, and the other from Lake Champlain to the Hudson about 47 miles—together, 400 miles of canal. The legislature of the state of New York, at their last session, authorised to be made the Champlain canal, and the middle section of the Erie canal, from Seneka river to the Mohawk. The excavation was commenced on the 4th of July last; and, notwithstanding a very unfavourable season, as much work has been done as would *finish* about 15 miles—the ground has been broken and the canal

partly made, for a much greater distance. More than 65 miles are under contract. Every step taken in the progress of the enterprise has proved more and more its easy practicability, These canals, when finished, will open a direct water-communication between all the shores of lakes Superior and Michigan, Huron, Erie and Champlain, and the Atlantic Ocean at the city of New York.

There has been made a canal which affords an inland navigation from Norfolk in Virginia to Pamplico-sound in North Carolina, connected with the numerous and fine rivers of those states. Its advantages are already extensively felt and enjoyed by their citizens.

II. Such water-communications as appear to be collateral to a primary canal, and naturally connected with the project.

The grand Erie canal of New York, traverses in its course 353 miles of a fertile and productive country, intersecting the water-communications of the numerous small lakes with lake Ontario, and joining the tide water of Hudson river at Albany. Several different branches of Susquehanna river approach near to those small lakes, and to some of the waters of the Mohawk; the head waters of the Delaware approach near to the Unadilla branch of Susquehanna. A thorough examination and detailed report of every circumstance of the intervening spaces will be very interesting to Pennsylvania, Delaware and Maryland, as will also be the practicability of connexions of the waters of Susquehanna with those of the Schuylkill, those of the Brandywine, and those of the Patapsco in Maryland.

It is confidently believed, that the water-communications are not only practicable but easy of execution, from lake Erie to the Alleghany river, to the Muskingum, to the Sciota and to the Wabash; from lake Michigan to Illinois river, and from Greenbay to Ouisconsin. A communication across from Detroit river to the southern part of lake Michigan is worthy of examination. These communications will be deeply interesting to the states of Ohio, Indiana, Illinois, Missouri and Michigan.

III. Such primary canals, as, from the proximity of bays and rivers, appear to be practicable, and, if practicable, of such importance as to invite examination.

A grand navigable internal communication, nearly parallel with the Atlantic coast of the U. States, from Massachusetts to Cape Florida, safe from the dangers of the sea, and from the attacks of armed vessels, is perhaps the first object for examination, and is interesting to all the states. I will mention a few points in this course as obviously presenting themselves. Round Cape Cod is a circuitous and dangerous navigation. A canal through the isthmus (apparently a short distance) from Barnstable bay to Buzzard's bay, would completely avoid the difficulty and interpose between such a canal and the stormy cape an impenetrable barrier. After passing Long-Island sound and the East River at New York, a canal from the Rariton to the Delaware, and another from the Delaware to the Chesapeak, would afford us an inland water passage to Norfolk in Virginia. There has been made through the Dismal Swamp a canal, which extends the communication through Albemarle sound and Pamplico sound to Cape Fear. This canal I am informed, already affords obvious and great benefits; yet it is probable, that some enlargement of it will be found expedient. It is my decided opinion that the difficulty of extending this inland navigation to even Cape Florida, would bear a very small proportion to its advantages.

From an inspection of the best maps we have, it appears highly probable that canals may be made to afford a safe, easy and cheap navigation, without any or with very little land portage, forming the following very important water connexions.

1st. Between the Potomak and Monongahela rivers.

2d. Between James, Roanoke, Yadkin, Kanawha, and Holston rivers, mutually.

3d. Between Ennoree, Keowee, Tugalo, Oconee, French broad, Chatahouchee, Talapoosa and Coosa rivers mutually.

4th. Between Okemulgee and Flint rivers.

5th. Between Tennessee, Tombigby, Yazoo, and Pearl rivers, mutually.

In the course of investigation, many other useful and practicable connexions might probably be discovered; but admitting the practicability of these mentioned, or even the greater part of them, it would seem almost an indecorum in me to attempt to display to you consequences so obvious as their immense benefits; in the glow of patriotic feeling we may enjoy the perspective—but who can calculate their magnitude or their amount?

In relation to *practicability*;—give us but a little water, in constant streams, higher than our *summit-level*, we have then the desideratum of Archimides, and even the most elevated mountains cease to be a barrier to navigation.

Let us beware of fettering our minds within the limits of the knowledge of former times, by the authority of celebrated names. The American mind has the vigour of youth and the sobriety of manhood. Let us emulate the Philosophers whom we admire; instead of following them with an *implicit* faith, let us investigate their theorems and their problems, examine well their works, and then think and judge for ourselves, and, if we can, *add something of our own*. Science and art are rapidly progressive, and in no department more so than in that of the civil engineer.

It has been fashionable with some politicians, to predict the severance of the United States at some future period, because (says they) nature has divided their interests and placed between them a barrier of mountains; but if we have a proper confidence in our resources, wisdom to cultivate and direct them, and perseverance in effort, we may throw across those mountains the strongest cords of union

Were congress to authorise to be made surveys, levels, examinations of the ground, and detailed reports of every circumstance, with proper maps and drafts of those spaces between bays and inlets of the sea, and between the sources of divergent rivers, would not such specific information greatly aid their deliberations on a subject so important?

If the idea be a correct one of making, among the states, a dividend of such surplus as may remain in the treasury, after providing for the accurate and specific topographical information before mentioned. I presume it would be unnecessary to make any specified object of application, a condition of the grant. Without doubt the states would apply it to that object in which they have a paramount interest.

In a government like ours, founded in honesty; resting on the virtue, and having in view the happiness of a whole people, I do not believe a public debt (whether it be due *from* the government, or from the citizens *to* the government) to be a public blessing, neither do I believe that a very rich treasury, would be favourable to the purity of a republic. If we have resources from which we can with certainty derive a revenue sufficient for every proper purpose, would it not be best to provide for the immediate application of any surplus which may accrue?

The preceding statements and remarks are with entire deference and respect, submitted to thy consideration and disposal, and to those of the committee on roads and canals, by your friend and fellow citizen,

ISAAC BRIGGS.

1 *mo.* 29, 1818.

FOR THE AMERICAN FARMER.

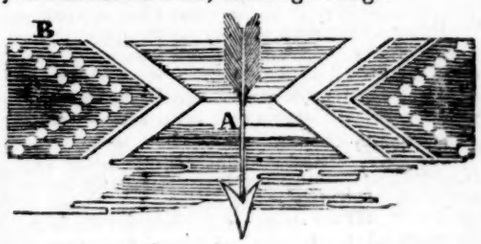
On reclaiming Marsh Land.

Charleston, Feb. 21, 1820.

MR. SKINNER—Some attention has been paid in your excellent publications, to the reclaiming of Marsh and Swamp Lands. Attention is surely well bestowed, when we thereby obtain the richest lands in the world, and promote the health of those employed in their cultivation.

But the failure of some from injudicious management or from accident, has discouraged many from the undertaking; while the more successful enterprise of others, instead of being diffused for the general information, through the medium of our periodical publications, is known only in their immediate neighbourhood and their example slowly adopted.

In this State, vast quantities of land have been banked and ditched, chiefly for the cultivation of rice, in the swamps adjoining the rivers near the sea coast as far as the fresh water ebbs and flows. The only difficulty is in stopping the creeks at first, or in closing a breach, should the bank subsequently bust or blow up. As the mud in such cases is very soft, vast quantities of the earth thrown in, will sink, and still more be carried off by the force of each ebb and flood tide. The plan most successfully adopted is practicable with labourers of every description, and the materials at hand on every farm or plantation.—A sufficiency of earth is collected either by digging in the vicinity or by transporting it from the nearest high ground. A number of poles or stakes are then cut and brought to the breach, and at low water driven into the mud, so as to form an angular pen in advance from each side of the gap. I may possibly be better understood by the annexed draft, although rough.



B. The Bank. A. The Gap.

The poles are left thus driven in until the next low water, that they may adhere to the mud more firmly by suction: the earth is then thrown into the pens, and is protected by them from the friction of the tide until the next low water.—Other poles are then driven in advance of these on the same plan and filled with earth, until the gap is gradually, but certainly closed.

In reclaiming marsh lands, the difficulties have been much greater, chiefly because of their greater exposure on the sea coast to severe gales of wind, and high spring tides. In a great measure to the spongy, light nature of the marsh land, it being in a degree composed of the roots of rushes and marsh grass. Likewise from want of attention in yearly repairing and raising the bank, which settles and contracts very much as roots decay; the mud also by drying, moulders into a fine dust and is blown away by every high wind. They who succeed best, have a sufficient space between the edge of the river or creek, and their bank, to save it as much as possible from being washed by the spring tides, or undermined by the encroachment of the river or creek. They form the bank by earth taken altogether from within it, and leave no ditch between the bank any the creek or river. They likewise leave a considerable margin between the bank and the ditch, formed by digging out the earth, and cover the top of the bank with highland-earth to mingle with the mud as it cracks by drying, and to prevent it from being washed and blown away. The trunks should be set so low and in such

number, as to be readily capable of drawing all the water that collects in the ditches: and this water ought to be constantly let off during the summer after each fall of rain, not only for the preservation of health, but the more speedy reclaiming of the land. Every shower washes the salts that had encrusted on the surface into the ditches, and if not let off, they would be reabsorbed. They are found to be copperas, alum, and common salt, all of which are destructive to vegetation, except in very small quantities. When the land is in this dry state, it is much better to burn the upper vegetable surface or turf than to rot it. When it has been burnt and freshened, if you can overflow in the winter and irrigate it from a reserve while under cultivation in the summer, your crops will be very fine. In setting the crop, as the soil is very light and dries rapidly, it must not be on beds, but rather in trenches, indeed some think it necessary to throw a little highland earth in with the seed.

But the most important operations of this kind, and those capable of being adopted by most of the states in the union, are in the immense inland swamps. The soil is believed to be inexhaustible, but the great height and force of the freshets had, until within a few years, rendered them too precarious for cultivation. Mr. William G. Richardson, near Manchester, had an extensive piece of swamp in one of the lowest and most unfavourable situations on Wateree river. He observed ridges of considerable elevation, running nearly in a line with the river in every part of the swamp, that were scarcely ever overflowed, and concluded, that a bank run across from the extremities of two such parallel ridges must secure the intermediate space. Many had lost their banks and had failed even in choice situations; he inquired of those who had succeeded, as to their different proportions and modes of conducting the work—he tried the experiment on a small scale, and succeeded completely, and has since contrived it with great advantage.

The first thing done is to fix on the line of the new bank, and from its varying relative height, to stake out its proper breadth; the proportion deemed requisite, and now usually adopted, is three feet at the base for each foot in elevation. —From the intermediate space designated by the stakes, every stick and limb or bough of a tree is carefully cleared away, lest water should be admitted into the bank by their decay. A central ditch is then dug from one to three feet wide according to the elevation, and many think it likewise necessary to break up by the spade or hoe the intermediate surface of vegetable mould, that the superstratum may adhere more firmly to it. This central ditch is considered all important to the success of the undertaking, and as indispensable as the tenon and mortise in the framing of a house. The earth is then dug where it can be most conveniently had, without risking the strength of the bank, always providing proper ditches within to drain the field in wet weather. Some think an additional precaution still necessary; they tread and even pestle the successive strata of earth to promote its adhesion throughout, especially at the base where the greatest pressure of water exists in the time of freshets.

All who have been engaged in such work agree, that there is no difficulty attending it, and that apprehension arising from former unsuccessful inexperienced efforts, are now the only obstacles to the general improvement.

May not this central ditch be advantageously adopted in relaiming marsh lands?—I submit it for the consideration of those who are better judges.

If your patience is not exhausted, I will add an improvement lately made in the cultivation of our light sandy soil on the sea coast and near it. It is deficient in loam and all the common manure that can be put on it produces but little effect. When the planters lay by their crops as safe from grass, they dig marsh mud in the most convenient situations, and strew it between the hills. It is left exposed to the weather all the autumn and winter, by which the salt is washed out, and the mud moulders so as to be more easily incorporated with the sandy soil.—In the spring they list and bed over the mud and the field improves yearly.

Is not this applicable to all the sea coast, south of New York?

A SOUTH CAROLINIAN.

To improve old worn out land.

It is generally acknowledged, that the best land may be reduced to sterility, from an unjudicious rotation of crops. It remains in a great measure to be proved, whether a farm, which from bad management had been rendered barren, can be restored to its pristine fertility, by a treatment, not beyond the reach of every farmer, (nor without the farm) who possesses the land, free from incumbrances, which are nearly equal to this supposed value of his worn out farm.

When an inquirer examines the publications of those, who have given the results of their experiments, it appears not only practicable, but easy: frequently, however, some circumstance is not mentioned in the communication, or some thing not attended to by the reader, who intends to make the same successful experiments, but fails from the causes stated.

The Rockland farm, exhibited a subject for experiment, as it had not only been reduced by cropping, but generally, became a common for every animal, to take what remained of the scanty natural, but coarse herbage: having read in various books the result of sowing plaster and clover, it was presumed, that sowing plaster and clover, would be the extent of the expenses, required to fertilize the fields, in a few years;—a few experiments proved that the clover seed and plaster were both lost, as no one could at any season of the year point out what field, or upon what part of any field they had been deposited, unless where the briars and bushes had been eradicated.

It should however have been mentioned, that the soil was generally a cold or heavy clay, some blue, white, light brown, and a few spots of red clay, loaded with hard blue stone and rocks, chiefly quartz, mixed with iron and copper. Some of the experiments were made with plaster, others were made by top dressing with lime, at the rate of twenty-five to thirty bushels per acre: the lime was brought twenty or twenty-five miles from the kiln, and laid on the field at 25 cents per bushel: it was formed into a bed of about half a foot thick, and covered with earth, ploughed and thrown over it, before it was slacked, that all the phosphoric principle disengaged by the water, might be united with the earth which covered it; a heavy harrow was afterwards passed over it, so soon as the shell was reduced to powder; the bed of lime and earth, was then frequently turned by the plough and harrow, until the whole assumed the appearance and smell of soapers ashes, contained about ten parts of common soil, to one of lime. It was then carted, and spread regularly over the field, and in every instance it gave a return of clover, equal to ten loads of stable manure to the acre. The idea of mixing the lime and earth, was suggested from spreading the refuse mortar of lime and sand gathered from about buildings, and laid upon the field, the effect of which I observed was more immediate than any equal quantity of lime: though mixtures of lime and earth, were equally so,—in both cases, the lime was completely pulverised, and the sand and earth, broke up the communication of lime with lime, and the succeeding rains carried the fertilizing principle of the lime, as from a sieve, into the soil where it was spread,—it completely divided the soil, rendering that open and warm, which before was compact, and too cold for the roots of the grain to live in.

The whole soil which before felt dead under foot, became so elastic, that persons of observation, by walking over the field in the night, distinctly told how far the lime and earth compost extended. The colour of the soil was likewise changed into that of chocolate.

These effects presented several ideas which had not occurred to me before, viz.:—That any thing which would separate the particles of the soil, and admit the air, would render these cold and heavy clays warm and fertile;—that the free admission of air, would carry off the acid; to meet this, ploughing in the fall was adopted, and found successful; one half of a field six years ago was ploughed in the winter, the other half ploughed in the spring, that part which was ploughed in the spring, has never brought grain or grass, equal to the other. It should have been observed, that the field had not been ploughed for upwards of twenty years; and, of course, a great body of rubbish and roots were ploughed in, after the briar-hook and grubbing-hoe had smoothed the surface. Spreading of manure in the autumn, from the compost bed, has also been introduced with universal success, both upon grain and grass fields, the lye or salts, of the manure, being carried into the soil by the rains upon the breaking up of the frosts, which have, in some measure, prepared the soil to receive it. High agricultural authorities, even bottomed on accurate observation, are opposed to the practice of spreading out manure in autumn; amongst these we find the justly celebrated lord Kaims, in his gentleman farmer, a work upon first prin-

ciples, and deservedly of the highest authority. A departure from his judgment is only to be allowed, where facts would censure silence; nor should his name have been mentioned, unless to avoid the charge of writing without attending to what has been said on that subject; it is no conclusive objection that "the strength of the manures, will be carried off by winter rains, or exhausted by the frost;" are not the warm showers more likely to do so, and are not the exhalations more copious in a warm than in a cold temperature; is the descending of the sap in trees no monitor, as to the season for spreading out manures, and about the operations of nature, for renewing, and invigorating the process of vegetation.

Briar-bushes, and all vegetable substances have been covered up with earth, rotted and used with the same success as stable manure, and so far, and so long, as they separate parts of the soil, and admit the air, they fertilize and change the colour of the mould. These experiments tested by frequent repetition, have laid a foundation for operations less expensive, and equally fertilizing, for the production of grass and grain.—*Ploughing* and *sowing for the purpose of producing pasture*, and *accumulation of vegetable soil have been adopted:* for this purpose wheat, rye, Indian corn, (maize,) buckwheat, and oats, have been sown upon fields ploughed, which were incapable of producing any crop; none of those grains, have produced pasture and vegetable soil equally valuable, to that from the oats—where the others have failed, its roots have *pierced*, *disarmed*, and *vanquished* the *inhospitable soil*, and rendered it fertile; the winter ploughing is continued, and the oats are thrown in, as early as the season will allow, sometimes in February, either upon what has been ploughed in autumn, or in the fields which were in corn the preceding year, or in pasture oats, the preceding fall. In general, they afford early pasture, and when they are re-ploughed in July and August, and sown again with oats, they furnish excellent pasture from early in September, until late in December, during that season when all the pasture is generally dried up. The first sowing of oats only gives about two months pasture, but the roots and remaining herbage affords a manure for the second sowing, and this always yields four months valuable pasture,——which no other course known to me will afford. In September, October, November, and December, considerable attention is required, to preserve the young clover, which the field will be able to raise in the second year of the oat pasture: if sown with the oats in the spring, the cattle should never be put in while the ground is too moist, as they would destroy and tread it into the soil; and sometimes dry seasons are also highly injurious to the clover. When the clover is sown with the second sowing of oats, the same care is required to prevent its being trodden in by the live stock, for this purpose it is always necessary to have a spare field of old pasture. which they will feed upon in wet weather, and which they would not relish in dry weather. To guard against a dry season it is most proper never to pasture the oats, where the clover is sown, so much as to prevent the herbage from giving shade to the clover. So soon as the field will produce clover luxuriantly, there is no farmer at a loss how to make his field as rich as he pleases, and having got them into good heart, it will be his interest to put them in such rotation, as shall increase the vegetable soil and consequent fertility of his field.

It is almost unnecessary, to mention, what will make its way to the understanding of every farmer, viz. The many advantages gained from treating his barren field in this way.

1st. Early and late sweet pasture from such fields, which otherwise produced a scanty coarse herbage unpalatable to every animal.

2d. Immediate reward for his labour; the stock are supported by it within two months from the time seed is sown—the two returns gave six months green food; he is not however to depend upon it for all his summer pasture.

3d. Perhaps it is one of the most effectual means to root out garlick, because what has escaped the plough in the spring, is eaten down with the pasture from the first sowing of oats and prevented from going into seed—the ploughing in July and August exposes so many of its bulbs to the sun that few shoots are to be found in oats sown for fall pasture.

4th. It is an easy and profitable way of clearing grain-fields from every species of injurious weeds; as it will convert them into vegetable soil, and enable the farmer to raise whatever grain or grass he shall judge most suitable to the soil.

5th. It will save the expense of a fruitless summer fallow, and the green herbage will aid the dairy.

6th. It enriches the farm from within itself, and no expense is required beyond the reach of any farmer—by rising one hour earlier, and working one hour later than usual, for two weeks, he may plough and sow two acres as an experiment. The pasture will recompense his labour, while his soil is greatly improved; it is equally evident, that the fertility of the soil is acquired, partly from the roots of the oats, opening the soil and introducing the air, and warmth of the sun, and partly from accession of vegetable soil, produced from the decomposed roots of such pasturage; but even before the roots are converted into soil, they produce the most beneficial effects. Those from the spring sowing, retain the moisture, and supply the summer sowing with it. The roots from the fall pasturage, being full of sap, introduce winter frosts every where, into the soil, which swelling with the congelation, separates the particles; for it is to be observed, that roots while the stem is eaten down by the stalk, do not become hard but are more numerous, than when the plant is matured into grain. It is however necessary to sow at least double the quantity of seed, to that required for crops of grain, the pasture, being so much the thicker, and the increase of vegetable soil from the decayed roots so much the greater.

It is not to be expected, that one or two repetitions of the series of oat pasture, will make the soil equally rich as a common dressing of stable manure, which from a farm of 100 acres, will not, in general, extend over more than 10 to 15 acres; this gives to one acre nearly the vegetable soil produced from seven or ten acres. It is to be remembered, that the object proposed was to render worn out, or barren fields productive; and in no case have I found a field, which was not, after two years oat pasture, capable of producing clover, and receiving the gypsum with evident advantage. So soon as a field produces clover, no one is at a loss, how to produce advantageous crops afterwards. It is in every one's power, to estimate what the ploughing and seeding per acre of oat pasture, will cost, and according to circumstances, so will the expenses be, but in general where the expenses are high, the value of the pasture is equally so, and if even granted that the cost of ploughing and seeding, shall be double in value to the pasture produced, let the comparative value of the field be fairly estimated, before the course was begun, a waste, or worn out field, and what it is now, when the course is completed, and laid down in clover, timothy, or orchard grass.

It will be of the first importance to have at least two fields, otherwise if the cattle are constantly upon the same field it will not be found so productive, and in wet weather, they should be turned into some field where the herbage was too hard in dry weather. It will be eaten greedily by the cattle after they have been satiated with the soft blades of the oats; under this management, beeves have been fatted for family use, and taken off in December without any grain. It is observed that the oats scour at first, but the free use of salt, readily corrects the complaint, and in no pasture do they rise faster in flesh; and the juices of their meat become uncommonly grateful.

The fields which have been in corn the preceding year, have also been sown in the spring; without being reploughed, and did equally well, except upon heavy clays, when the spring has commenced with heavy rains, which have rendered the soil too compact to be opened, even with a heavy brake harrow drawn by four horses. The fields from the oat pasture the foregoing autumn, have also been sown, without reploughing, when the spring has set in without much rain, after severe frost—not only the oat pasture, but also the clover sown therewith, have answered well.

Oats have also been sown amongst the hills and drills of corn, after it has received the last dressing. It has succeeded, without any visible injury to the corn, provided, care has been taken not to injure the roots by the plough or harrow at the time the oats were sown.

It has been inquired, are not all the crops of oats exhausting, if so, how can two sowings of oats in the same year, render the soil fertile? it is granted, if oats shall be matured into seed they will certainly exhaust, but if cut off while in the blade, they, and all culmiferous plants, will fertilize. The experiment was made with Indian corn, sown broad-cast, cut twice and carried to the stable, and a crop of turnips taken off the ground the same season—the manure was laid on before the corn was sown, but none was given when the turnip seed was put in.

Another way in which oats fertilize, appears to be from increase of vegetable soil; this is within the view of every observer; the remains

of the pasture ploughed in, particularly in July and August, is speedily decomposed, its tenderness and moisture aiding the dissolution. But dry stubble and husky roots are difficultly decomposed, nor do they produce so much carbonic or coally matter in the soil, which chemists say decomposes the water, and produces the air required to promote vegetation. As the vegetable is produced from air and water, and not from earth, which seems to be no more than the laboratory where the process of vegetation commences, and finally serves as a matrix to hold one part of the plant, while the other parts are raised aloft, in quest of superior aid, to complete the inscrutable operations of the vegetable fabric.

It has also been inquired, will the process of oat pasture fertilize every where? it is answered, that where the soil and climate are the same, the effects will be the same also. A description has been given of the soils, where the experiments were made, and are still to be made, and are still going on. If experiments of the same nature shall be made upon a different soil and climate, the result will be different, and more or less favourable, according to circumstances, and for which the practice now mentioned, cannot in justice be rendered accountable. If my shoe fit my foot, I am warranted to say, it will suit a foot of the same shape and size every where: let no one conclude that it will fit a foot of larger or less size, or different form; but I must confess that passing over things equally obvious, I have run into numerous and expensive errors.

But when it is inquired upon what evidence it is to be received—the reply is at hand, living evidences are at the command of every one who chooses to make the trial; let him, however, be on his guard, against suffering himself to take a crop in place of the spring pasture oats.

If it shall be inquired, how does the oat pasture fertilize? It may be also observed that the constant verdure and green herbage prevent the rays of the sun from parching the soil and depriving it of its moisture and air, both of which are highly necessary to vegetation. The double portion of juicy vegetable matter arising from the two crops of pasture in the same summer, being every where united with the common soil partly mechanically and partly chemically, renders the soil capable of retaining sufficient moisture and elastic air, to make it open and warm, and by which the soil does not only become thicker by going downward, but actually expands, or rises, so as to give a furrow, considerably deeper, than formerly, over immoveable rocks. Some years ago, a field in view of the farm-house, marked the broad rocks, during the course of every crop: they are now covered with so much soil, that they are seldom observed. The two ploughings also contribute to the increase of the air in the soil, without which no soil can be fruitful, there being no vegetation in vacuo. Tull's horse hoeing husbandry was introduced under the idea, that the *pabulum* of plants was pulverized earth; the fact daily before us is, that pulverized earth retains the *moisture* and *air*, as the handmaids of vegetation; some experiments have lately been made, the results of which favour these remarks, viz. "that *soils* afforded quantities of *air* by distillation, somewhat corresponding to the ratios of their *values*."

TO THE EDITOR OF THE AMERICAN FARMER.

SIR—When my aunt Simpy read the letter which you printed for me the other day, said she, "Jeremiah my dear, I have a few questions to ask you, which I beg you to answer me with your accustomed frankness and candour. In the first place," (taking out her spectacles and wiping them, then putting them on, and running her eye down the side of the paper containing my letter,) "in the first place" said she. "I wish you to inform me in what catalogue, or book of gardening, or botany, you found the name of a plant called *Dark Mud?*" Dark Mud! said I, why what do you mean?—"I mean" said she "*Rumex Egyptianus*, Dark Mud."—I was somewhat confounded with my aunt's question, coupled with her grave & formal manner, and was rather at a loss to know precisely what she was at: but on casting my eye to the place where she directed her's, I discovered that the printer had mistaken Dock Weed for Dark Mud!—Well said I, this is really provoking, after I had hammered my brains so long to produce something fit to go before the public, and taking such uncommon pains to avoid every thing like pot-hooks and trammels; besides too, I made my letter as short as possible for fear of mistakes, and after all, the point of the very best part of my letter is destroyed by calling Dock Weed, Dark Mud! I do believe in my very soul, these Printers can't print ten words without making some mistake; and this one reminds me of the Player who was always making blunders, and to avoid which, they gave him as his part—"My Lord, stand by and let the coffin pass"—this was all he had to say in the whole play, which he repeated over and over, until his turn came, when after bracing himself up for the occasion, and hemming to clear his throat, he in an audible voice, said "My Lord, stand by and let the Parson cough!"—Dock Weed, Dark Mud! I shall never get over it, for although the mistake is not mine, I feel like the poor player, covered with confusion, and have almost sworn that this my first, shall be my last appearance on any stage.

"Well," continued my aunt, "why do you recommend that the transplanted corn should always be placed in the same position in relation to the compass?" I must acknowledge that this question of my aunt surprised me more than the other; not that I found any difficulty in answering it, but that a woman of her good sense should allow herself to ask such an idle question. Why, aunt Simpy, said I, placing one hand on my hip and throwing my head a little on one side, in a sort of a quizzical, not exactly "a Grecian attitude," is it possible you have lived so long in the country, and don't know that every stalk of corn grows exactly alike in regard to the compass? throwing its leaves east and west and having one flat side of the stalk on the south? and the other on the north? My aunt shook her head, but at the same time cast her eye out of the window into the corn field, and discovered that I was right. "Well" said she, "I now perceive the reason why you plant your hills of corn north and south, at the distance of three feet from hill to hill, while the rows are five feet apart"—certainly, said I, it is that they may stand with their flat sides towards one another in the rows, and that there may be room between the rows for their long leaves to spread, and catch the dews and rains which they conduct to the roots. Besides, said I, do you not know that every tree and plant accommodates itself in its organization to its particular position in regard to the sun, inclining itself, its limbs, and its leaves, so as to receive the greatest benefit from its rays, and that this arrangement once disturbed, the plant never thrives afterwards. Take for instance one of your pots of flowers, or even *Dark Mud*, as the printers call it, and turn it around every day for six weeks, and the plant will perish. I perceived that my aunt had several other questions she intended to ask, but having been detected in her ignorance for the first time in her life, she appeared as much confused and mortified as either the player or myself, and took the first opportunity of slipping out to squeez the gape worms out of the throats of her chickens, and to feed her turkeys on brick-bats and charcoal, a plan which she highly approves of; but, she thinks that she has lately made the discovery, that it would be a very great improvement, and hasten the fattening very much, by giving them at the same time, as much corn as they can eat.

Your obedient servant,
and friend,
JEREMIAH SIMPLE.

P. S. What mortifies me most, is to see other papers copy the Post Script of my letter just for the purpose, I suppose, of making people laugh at the blunder. But I beg you will let them know it is no blunder of mine.

J. S.

FOR THE AMERICAN FARMER.

ON THE CULTURE OF
Indian Corn, Wheat & Timothy

Hardy County, Va.

MR. SKINNER—In your paper I see Mr. Pickering's remarks on Indian corn and winter grain. The business of this county is chiefly grazing and feeding stock with corn. If my experience in that line is thought by you, worthy of communicating, you may do so. Our former practice was to hill our corn—I now think it wrong. In case of storms when the corn is bent with wind and rain, the earth falls in the vacancy on the windward side, and the rain beats it so as to prevent its rising as much as it would do if not hilled.

As to sowing winter grain in the corn, it was our custom fifteen or twenty years ago—experience shewed us that there would be vacancies round the stub and in the furrow. Our method now is to cut up our corn when fit, which is generally about the first of October, to sow our wheat by the corn rows, which are about four feet apart, to plough it in with a shovel plough, running as close to the stubs as possible, then take a heavy iron tooth harrow

run it over the stubs, one horse walking in the furrow on each side. As I raise but little winter grain in proportion to Indian corn, I always grass the land I sow in small grain, with a view of improving it by mowing and feeding on it, while in meadow—when it is harrowed once over, I sow it in Timothy grass seed, and then grass harrow it, which puts the surface quite level for the sythe—the timothy will come up with the wheat, and will stand the winter, and will not be so easily smothered and destroyed by heavy grain, as it is if sown in the spring on the grain—also comes much more regular. I have tried red clover in the same way, but I found it would not stand our winters, the frost killing the greater part.

For eight or ten years past I have followed the above method, and have not yet missed having a good crop of wheat, say from twenty to thirty bushels per acre—and some fall pasture from my grass in the stubble—and the next season as good a crop of hay as any afterwards. I have found it necessary twice in my time, to run the harrow over the stubs the last of March or the first of April, to level them completely. Our land will produce forty or fifty bushels of corn per acre, if the season is good. The small grain sowed in this manner will be as regular and as good as any other way that I have ever put it in. We cut up our corn sixteen hills square, and set each square in a stack in the centre on the end, and it stands there until drawn out in the winter to feed to our stock—and if any more than wanted for that purpose, it is husked out in April and cribbed for summer use. If it is set up well, it will be safe from damaging. Your's with respect,

ABEL SEYMOUR.

On the Hessian-Fly,

AND ON THE PROPER DEPTH OF SOWING *WHEAT—No. III.*

FROM THE NATIONAL INTELLIGENCER.

WHEAT FLY AGAIN.

FREDERICK COUNTY, MD. DEC, 26, 1817.

Messrs. Gales and Seaton,

Being one of your subscribers, I observe in your paper of the 19th inst. a piece on the subject of that destructive insect, commonly called the Hessian Fly, by a King William farmer, which appears to be in answer, to or remarks on a communication from general John H. Cocke which was read before the Agricultural Society of Albemarle, on the 3d of November last, on the same subject. There is much credit due to the gentleman who made the communication to the Society, for his attention to the subject, and his liberality in communicating the result of his labour and information to the public ; it must have cost him time and close attention to the subject, and I think it one of the best, and minutest descriptions on the subject, that I have yet seen published, so far as it goes.

The King William farmer rather treats with derision that part of the subject of the communication which recommends the experiment of grazing the crop at a certain stage thereof, for the purpose of in part preventing the ravages of that insect, and states that, he had been informed that a gentleman on the Rappahannock, grazed one of many fields last winter, which was entirely destroyed last Spring, in consequence of the branches of wheat being all young, inviting the fly, and never having strength to recover ; that last spring, the wheat first attacked by the fly recovered, and made a partial crop, while the last sown wheat, in many places was not worth harvesting, particularly if of the same kind.

The King William farmer certainly did not give the subject that deliberation which it is susceptable of, for I do not think the case cited by him, of the Rappahannock farmer extends to that proof of the inefficacy of grazing, on which he seems so much to rely ; for I have very little doubt on my mind, that if the Rappahannock farmer had grazed all his fields of wheat at the same and in the proper time, which were adjoining each other, he would have found the result of grazing very different from the result of the one field only, which he did graze : for it is a fact well known that late sown wheat has frequently produced tolerably good crops, where the more early sown has been much injured ; therefore the causes of such opposite results should be well known before a person can condemn a recommendation in either way. I am satisfied that grazing wheat crops at a certain stage of the crop, if affected by the fly, is a partial advantage to the crop, by arresting it from the ravages of the spring fly ; provided all the fields affected adjoining each other are grazed at the same time ; but where one field only is grazed among many which are affected by the fly, it is put into a situation more subject to be injured by the spring fly than if it had not been grazed, for wherever several fields are sown adjacent to each other, the more regular and uniform their growth, the greater is the prospect of the crop ; and the greater the disparity or difference in their growth the less prospect, for there are few instances where two fields adjacent to each other are to be sown with wheat, and where one of them is sown at the beginning of seed time, and the other is left unsown until the end or late seed time, that both fields produce good crops. I think it almost impossible. If any fly exists at all, very frequently both fields are destroyed, the one by the fall fly the other by the spring fly ; greater prospects might be expected from both the fields, in any other situation than that of joining each other.

I make the above remarks, not that I think grazing the crop, is the best or only remedy against the ravage of the fly, but that I think it may be serviceable in certain instances to crops ; for I think a little attention to the situation of fields, to be sown with wheat, as to what nurseries of flies are adjacent to them, what risk there is by inducing the fly into the fields, by sowing them at an unreasonable time, is of more service in preventing the disaster than all the remedies I have yet heard of. Much depends on the situation of fields, to be sown with wheat as to their situation to other fields.—Some situations will bear early seeding, others not ; for I am satisfied that two fields, although adjoining each other, may nevertheless be so situated, in respect to other adjoining fields that the one would bear early seeding without much risk when the other would not.

It is the prevailing opinion of many, that the flies take their flights at certain periods of time ; and wherever chance causes them to light in a field of wheat, that field must inevitably be destroyed ; and being so impressed with the opinion that the destruction is caused in that chance way, their attentions have been more taken up with devising remedies, to be resorted to when the cause exists, than with devising means as preventives. I am convinced by many years practice in farming, and particular attention to the subject that the latter is most to be relied on. The flies are a numerous insect, actuated by instinct, as all other insects are ; young and tender vegetation appears to be their element ; if therefore wheat is sown, at a time, and in a situation which will induce them into it out of an adjacent nursery, existing at the time, the prospect of the crop must in that event, be not very flattering, although the grain be nicely put in, and although the land may be strong.

A FREDERICK COUNTY FARMER.

FOR THE AMERICAN FARMER.

Sesamum or Bene.

The oil and *the food* for man and beast produced by the vine called the *Sesamum Orientale*, or *Bene* bush, or vine, are well worthy of the attention of the people of the United States. The Bene vine or bush, has been produced for some time, in small quantities, in the southern states, from seed imported directly or indirectly from Africa, and from Asia—It abounds in the former, and in Bengal. Many of the blacks of the Mississippi, have continued the propagation of the seed of the Bene, and make soup of it after parching. The seed may be procured from them and from the blacks in the Carolinas and Georgia. Several planters of the latter state have cultivated it largely, particulary Col. Few and Col. Milledge ; the last of whom published a pamplet on the subject. Doctor Samuel Brown the senior medical professor of the Transylvania University of Kentucky, made a crop of sixty acres in the late war, in the 32nd degree of north latitude, near Fort Adams. It will grow in any land suitable for cotton, if properly planted in drills four feet apart, in the latter part of April, and gathered in the latter part of September, in the 32nd degree of north latitude. It has been tried with success in 34° 50′ ; and as frosts do not affect the crops in October in higher latitudes, it is worth trial wherever cotton is produced, and even in the 43th and 41st degrees. The experiments will cost little money, time or labour, and land is abundant.—Some accounts of this plant may be obtained from the Encyclopædia Britannica, the archives of useful knowledge by Doctor James Mease of Philadelphia, and other general books of science and agriculture.

The Bene, or Sesamum. produces a very good salad oil, not distinguishable from fine olive oil of France and Italy. It may be applied to all the other uses of fine and coarse oil. It is pressed by the same means as the flaxseed oil. The oil cake is very pleasant at table, is eaten freely by horned cattle, swine, &c. and it is often used when fresh to boil with other vegetables, rendering butter unnecessary.

The *Sesamum*, is an annual plant. It grows like cotton, from three to six feet high, bearing numerous square pods, about one inch and a half in length, filled with seeds about the size of flaxseeds. It requires no sticks, poles or other support. The product of seed is about twelve or fifteen bushels to the acre. It has been reported that each gallon of seed will yield three quarts of oil. This appears to be improbable, but it has been thought that two quarts of oil might be expected from a gallon of seed. The oil may also be extracted, by bruising the seed, and immersing them in boiling water, when the oil rises on the top and is easily skummed off. Good casks filled, or bottles filled, and well bunged or corked are proper to preserve this oil which doubtless, will become rancid by heat, time, impurities and air, like other oils, vegetable and animal.

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FOR THE AMERICAN FARMER.

To General T. M. FORMAN, *near Savington, Cecil County, Maryland.*

SIR,—I have been, for a long time, under the impression that the United States might derive immense advantages from the introduction of plants, animals, aids and operations into its practical agriculture, from countries of corresponding temperatures and circumstances. Of this American expectation, indigo, rice, cotton and cane sugar are memorable examples in the south. The Flemish red clover, gypsum, the varieties of wheat and other bread grains, the irrigation of lands, the mangel wurtzel, and ruta baga are interesting examples in the middle, northern and eastern states.—The grape vine and olive are on trial. The former is sure: the latter hopeful.

Among the objects of promise, not yet duly regarded is the *Bene** plant, of great value for its *excellent oil*, similar, to my actual knowledge, to that of *Florence* and *Provence* olives. I am led to address you, on this subject, because it appears that you have paid to it, the most useful attention, from the brief, but just notice taken of it in the last paragraph of your letter from Rose-Hill, of the 9th of October, 1815, published in the 4th volume of the memoirs of the Philadelphia Agricultural Society, page 1 and 2 I infer from your letter, that you have found by the planting of your half gallon of Georgia seed, by yourself, your friends and your tenants, that the *Sesamum* or *Bene* of Africa and East India, will grow to maturity in Cecil county of Maryland, the most southern part of which is in about 39 degrees, 20 minutes north latitude. A scientific agricultural friend of mine had raised it in 32° and in 34° 30′ in the present states of Mississippi and Alabama, and I have eaten salad dressed with the oil made in South Carolina, with the greatest satisfaction as to smell, flavour and agreement with stomach throughout my family. But your experiments if, I am right in presuming them successful, give us four or five degrees more of northing.—Permit me to ask you to furnish the zealous and intelligent editor of the Baltimore *American Farmer*, and through him our country, with a statement of all the circumstances attending your experiments in the cultivation of the *Bene* or *Sesamum*, from the local source of the seed, and its age, and cost, to the preparation of the grounds, by various planters, the time, manner and course of sowing or planting, dressing, propping, poleing, sticking or supporting the bush or vine or plant, the time of gathering or cropping, the quantity per acre, the shape, form and size of the pods, and seeds, their uses in feeding *man* and *beast*, the mode of pressing, or extracting the oil used by you or in Georgia, whether by the press or by hot water, the uses of the pulp or oil cake left after pressure, in cooking or for cattle or for manure, with such other matters as may be, in any way, useful on a new subject. One great point I submit to your most careful reflection, that is whether there is spring, summer and autumn warmth and season for its growth, in your exact degree and minute of latitude, which it will be useful to state with precision.

Our country is full of good things. There is no impediment of church or state to the free use of the pen and the press in the communication of what we know. Men blessed with education, understanding and property will not keep their talents, wrapt and unused in an idle napkin.

In a late communication to the Editor of the Farmer, the principal facts, which appeared in Alabama and Mississippi states, in a culture on the scale of sixty acres, were given. The cultivator joins to a strong and intuitive mind, education, great opportunities of observation in American and foreign culture, general education and a strong improved taste in science pertinent to farming and planting. All his facts are therefore to be relied on. It is proposed to pursue and condense the floating information on this subject, the most material part of which is the climates, and degrees of latitude in our country, in which the *Sesamum* or *Bene* will produce good and sure crops of its admirable *oil seed*. As the culture of the olive tree is only commenced and is yet to be matured in the United States, this easy plant the Bene will be useful in all places in the mean time; and if it has succeeded in the county of Cecil, it will produce oil in latitudes too far north to preserve the olive in safety from the frost.

A FRIEND OF THE PLOUGH.

Philadelphia, July 4, 1820.

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* *Sesamum orientale*, in the books of Botany and general science.

THE FARMER.

BALTIMORE, FRIDAY, JULY 21, 1820.

☞ THE GREAT DESIDERATUM.—To prevent *fly* from destroying turnips, always choose a piece of *poor* land for your turnip patch, plough and harrow it until you get it very fine, then manure it well with ashes or *well rotted* stable manure; sow your turnip seed with *Indian meal*, that you may see whether you sow it too thick or too thinly, then *harrow* in the seed with an iron tooth harrow, be not afraid of putting them in too deep—if you *bush them in*, they are scarcely covered, they are up before the root has taken any hold, and lying on the surface of the ground, they nearly all perish the first dry spell that follows after their coming up, and you find it very convenient, without further inquiry, to cry out—Oh! the cursed fly has eat up all my turnips; but choose poor land, make it *fine* and *rich*, and cover your seed deep and the *fly* will fly away to your neighbours.—The advice here given rests on the authority and practice of an experienced cultivator, on the Reisterstown road, who has not missed a crop of turnips for thirty years; for the common turnip sow between the 20th and the last day of July. If you want them *sweet*, a week or ten days later will make them so.

☞ MOLES.—Who can tell how to destroy them? We have heard great complaint of the ravages committed by them, and one Farmer-ess exclaims in despair—"Sir, if you don't tell us how to destroy the moles, the moles will destroy us."

☞ THE OX SHOVEL PLOUGH, OR SCRAPER, used for making turnpike roads, and which may be used for ditching—might be advantageously used to a much greater extent on farms than it is now. The Editor will be thankful to any one who will send him the exact dimensions, and a drawing of one, if that should be thought necessary to enable persons who have not seen them, to make them—we are not aware that it has been patented.

Would not this implement be highly useful, in scraping up for the cart, the manure of old dung-hills, head-lands, &c. &c. after it had been loosened with the plough.

☞ There is one light in which we beg to present the convenience and usefulness of this journal, to the view of our readers.

It now circulates, we may say extensively, in every state of the Union, but especially in the southern and western states. It constitutes an intellectual fountain in the centre of our various degrees of climate, from which agricultural experience and intelligence may be made to flow over all the states—so that if in one part of the country, either from its having been longer settled, or from any other cause greater perfection has been attained in any particular branch of husbandry—this paper may at once convey a knowledge of these superior practices through other districts of the country, where the subject of them is less perfectly understood.

To reap the benefit of the advantages thus offered the more effectually, we propose that, when any one of our patrons, reside where he may, shall desire to be informed as to any particular agricultural operation, or pursuit; which is either already introduced, but imperfectly practised; or which he thinks might be advantageously introduced in his district—in such case we propose that he should briefly submit, in a letter to the Editor, such inquiries as may be necessary to elicit the information desired. Whereupon the Editor will either answer him directly, if in his power to do it with confidence, or he will insert in the Farmer, the substance of the inquiries—and here we come to our object—which is to entreat our readers who may happen to be conversant with the matter in question, when they see inquiries of this sort to *take up their pen and answer them* with the plainness and promptitude which becomes the honest frankness and benevolent spirit of *American Farmers*.

It is easy to see how useful would be a compliance with this request. There are none of us so wise, as to be independent of the experience and acquirements of others—and how can we require others to inform us on subjects in which we are inexperienced, if we, from indolence, or a fastidious disinclination to write, refuse to hold out our own lights when entreated to do so?

Let us repeat that to communicate for a paper like this, the habit of writing for the press, is by no means essential. The plainer the language in which agricultural facts are communicated the better, and the simple, unadorned modes of expression used in the field or fire side conversation of Farmers; is best suited for the columns of this journal. If a word happens to be spelled amiss, why it is the duty of the Editor or the Printer to correct it—or if they fail either from ignorance or inattention, no great harm is done, since if the *meaning be clear*, the spelling or phraseology is of not so much consequence.

Take, as an example of the spirit of free communication we would inculcate, the following extract from a friend in North Carolina. It would seem that the agriculture of that district, may be greatly promoted by the application of shell-rock lime, as a manure; yet the process of burning and preparing it, is not perfectly well understood. Is it not then matter of courtesy not to say of duty, with those who do understand it, to communicate their information for the good of others? may *they* not want information some day on some other branch of husbandry? It is in this free offering and interchange of the fruits of experience, that the great blessing of the art of printing consists.

One additional suggestion—when the pen is taken to describe any system or process in agriculture—the better way is to suppose your reader *entirely* ignorant of the subject—then begin at the beginning, to use a vulgar saying, and go on from point to point, describing plainly and minutely every particular.

"The farmers in this vicinity are turning their attention to lime as a manure. We have an abundance of the stone called *shell-rock*—it yields excellent lime, but is very hard and a portion is frequently left unchanged. If some of your correspondents would give directions for building kilns, and burning stone upon the plan found most successful, we should be greatly obliged, and the interests of agriculture essentially promoted.

Very respectfully, your ob't. serv't."

Newbern, N. C. July 3.

Present Prices of Country Produce in this Market.

Actual sales of Wheat—WHITE, 95 cts.—RED, 90 to 93 cts—CORN, white 51 to 52 cts—Yellow do. 50 cts. RYE, 50 cts—OATS, 33 cts—HAY, per ton $16—STRAW, do. $7—FLOUR, from the wagons, $4 62½—WHISKEY, from do. 33 cts—BUTTER, pr. lb. 20 to 25 cts.—EGGS, per doz. 15 cts—VEAL, per lb. 6 to 8 cts—MUTTON, per quarter, 37½ to 62½ cts—BEEF, prime pieces, 10 cts—Live CATTLE, $6 to $7—POTATOES, 50 cts—HAMS, 15 cts—MIDDLINGS, 11 cts.—TAR, $2 50, scarce TURPENTINE, soft $2 to $2 25—SPIRITS, do 35 cts—ROSIN, $2, plenty—PITCH, $2 50—BLACK-EYE PEAS, 65 to 70 cts. plenty—Maryland TOBACCO, 2 hhds. crop, Anne Arundel, sold the present week for $9 to $9 75 Two hhds, seconds, at $7—Richmond TOBACCO, no sales, price nominally, 7 & 9 cents.

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BY JOHN S. SKINNER, EDITOR.